

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) Position-sensitive detector for measuring charged particles comprising a surface region, which is formed by an amorphous layer with a structured, metallic layer disposed above it,

characterised in that

the structure of the metallic layer is continued into the amorphous layer.
2. (Original) Position-sensitive detector according to claim 1, **characterised in that** the structure of the metallic layer extends through the amorphous layer into the crystalline structure, onto which the amorphous layer is applied.
3. (Currently Amended) Position-sensitive detector according to claim 1 or 2, **characterised in that** the amorphous layer is formed from germanium or silicon.
4. (Currently Amended) Position-sensitive detector according to ~~any one of the preceding claims~~ claim 1, **characterised in that** the metallic layer consists of aluminium, palladium or gold.
5. (Currently Amended) Position-sensitive detector according to ~~any one of the preceding claims~~ claim 1, **characterised in that** the crystalline region beneath the amorphous layer is formed of germanium, silicon or a III-V compound.
6. (Currently Amended) Position-sensitive detector according to ~~any one of the preceding claims~~ claim 1, characterized in that the structure is formed from segments, which provide a mutual spacing of less than 200 μm , in particular, a spacing of less than 100 μm , by particular preference less than 20 μm .

7. **(Currently Amended)** Position-sensitive detector according to ~~any one of the preceding claims claim 1~~, **characterised in that** the amorphous layer is applied to a semiconductor material.
8. **(Currently Amended)** Position-sensitive detector according to ~~any one of the preceding claims claim 1~~, **characterised in that** the amorphous layer provides an electrical conductivity, which is substantially less than the conductivity of the material disposed beneath the amorphous layer.
9. **(Currently Amended)** Tomograph or Compton camera with a detector according to ~~any one of the preceding claims claim 1~~.